

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**1 - 33 (*Canceled*)**

**34. (*Currently Amended*)** A generator for an engine comprising a flywheel configured so that a mass of rotatable magnets and adjacent magnetic steel material associated with the flywheel operatively associated with the magnets provide rotational inertia and ~~function as~~ have a permanent ~~magnetic magnet~~ rotor function to constitute a unitary flywheel-alternator ~~fan~~-assembly for alternator power generation, ~~wherein an inner portion of the flywheel constitutes the only structural member connecting the rotatable magnets and associated magnetic material with the engine crankshaft, said inner portion also functions as a cooling fan or blower to create the necessary air flow rate and air pressure rise necessary to force cooling air over selected areas of the engine.~~

**35. (*Currently Amended*)** The generator of Claim 34, wherein ~~the~~ an inner portion of the flywheel is made from lightweight material and constitutes the only structural member connecting the rotatable magnets and associated magnetic material with a crankshaft of the engine.

**36. (Currently Amended)** The generator of Claim 34, wherein the unitary flywheel-alternator ~~fan~~-assembly is the sole component driven by the engine.

**37. (Previously Presented)** The generator of Claim 34, wherein the magnetic material is steel.

**38. (Previously Presented)** The generator of Claim 34, wherein the flywheel is comprised of Samarium cobalt magnets, steel, and an aluminum alloy.

**39. (Previously Presented)** The generator of Claim 34, wherein the flywheel is comprised of Neodymium-iron-boron magnets, steel, and an aluminum alloy.

**40. (Previously Presented)** The generator of Claim 34, wherein the flywheel is comprised of Samarium cobalt magnets, steel and a magnesium alloy.

**41. (Previously Presented)** The generator of Claim 34, wherein the flywheel is comprised of Neodymium-iron-boron magnets, steel, and a magnesium alloy.

**42. (Currently Amended)** The generator of Claim 34, wherein said inner portion also functions as a cooling fan or blower to create the necessary air flow rate and air pressure rise necessary to force cooling air over selected areas of the engine, the selected engine areas comprise-comprising at least one of an oil reservoir, electronics, cylinder head, and engine block.

**43. (Previously Presented)** The generator of Claim 34, wherein the engine is an internal combustion engine.

44. *(Currently Amended)* The generator of Claim ~~34~~ 42, wherein the cooling fan is selected from the group consisting of a centrifugal fan, an axial fan and a mixed-flow fan.

45. *(Currently Amended)* ~~The A generator of Claim 44, for an engine~~  
comprising a flywheel configured so that a mass of rotatable magnets and steel  
material associated with the flywheel provide rotational inertia and function as a  
permanent magnetic rotor function to constitute a unitary flywheel-alternator  
fan assembly for alternator power generation, wherein an inner portion of the  
flywheel constitutes the only structural member connecting the rotatable  
magnets and associated magnetic material with the engine crankshaft, said  
inner portion also functions as a cooling fan or blower to create the necessary air  
flow rate and air pressure rise necessary to force cooling air over selected areas  
of the engine, wherein the cooling fan is selected from the group consisting of a  
centrifugal fan, an axial fan and a mixed-flow fan, an engine cowling is provided  
to function as at least two of a fan shroud, a fan scroll, a distributor to cool the  
engine and alternator, an electronic cold plate and one or more coolant ducts.

46. *(Previously Presented)* The generator of Claim 45, wherein the distributor function of the engine cowling separates air flow to cool at least two of an engine head, cylinder wall of the engine, oil sump and electronics.

47. *(Previously Presented)* The generator of Claim 45, wherein a fan shroud for the cooling fan is operatively associated with the engine cooling to force air through the engine cowling.

48. *(Currently Amended)* The generator of Claim ~~34~~ 42, wherein the cooling fan provides a mechanical link between ~~an inertia component~~ the rotational magnets and a mounting portion of the flywheel.

49. *(Previously Presented)* The generator of Claim 48, wherein a lightweight alloy in the cooling fan constitutes the mechanical link and magnetic materials of the alternator's rotor provides the inertia component.

50. *(Previously Presented)* The generator of Claim 34, wherein the alternator is a permanent magnet alternator.

51. *(Currently Amended)* The flywheel of Claim ~~34~~ 42, wherein the alternator rotor, inertial material and fan or blower constitute a ~~three-piece~~ multi-piece construction of lightweight material, magnetic material, and magnets.

52. *(Previously Presented)* The generator of Claim 51, wherein the lightweight alloy is one of magnesium or an aluminum alloy.

53. *(Previously Presented)* The generator of Claim 50, wherein the alternator is a radial gap, twelve-pole alternator.

**54. (*Previously Presented*)** The generator of Claim 34, wherein means is provided for converting alternating current produced by the alternator into direct current.

**55. (*Previously Presented*)** The generator of Claim 54, wherein the converting means comprises rectifiers.

**56. (*Previously Presented*)** The generator of Claim 54, wherein an engine cowling is provided to function as at least two of a fan shroud, a fan scroll, a distributor to cool the engine and the alternator, an electronic cold plate and one or more coolant ducts.

**57. (*Previously Presented*)** The generator of Claim 56, wherein the distributor function of the engine cowling separates air flow to cool at least two of an engine head, cylinder wall of the engine, electrical components, and an oil sump.

**58. (*Previously Presented*)** The generator of Claim 51, wherein at least one coolant duct is associated with the oil sump which includes fins in the duct channel to enhance cooling.

**59. (*Previously Presented*)** The generator of Claim 54, wherein the converting means is arranged at the engine cowling.

60. *(Previously Presented)* The generator of Claim 54, wherein the alternator is configured to produce three-phase power in parallel circuits.

61. *(Previously Presented)* The generator of Claim 60, wherein the converting means comprise full-wave rectifiers.

62. *(Previously Presented)* The generator of Claim 61, wherein an engine cowling is provided to function as at least two of a fan shroud, a fan scroll, a distributor to cool the engine and the alternator, an electronic cold plate and one or more coolant ducts.

63. *(Previously Presented)* The generator of Claim 62, wherein the converting means is arranged at the engine cowling.

64. *(Previously Presented)* The generator of Claim 34, wherein a backpack mounting is provided for the engine and alternator.

65. *(Previously Presented)* The generator of Claim 64, wherein the engine and alternator are configured to produce a power output of up to about 5 kW.

66. *(Currently Amended)* The ~~A~~ generator of Claim ~~34~~ for an engine comprising a flywheel configured so that a mass of rotatable magnets and magnetic steel material associated with the flywheel provide rotational inertia and function as a permanent magnetic rotor function to constitute a unitary flywheel-alternator fan assembly for alternator power generation, wherein an

inner portion of the flywheel constitutes the only structural member connecting the rotatable magnets and associated magnetic material with the engine crankshaft, said inner portion also functions as a cooling fan or blower to create the necessary air flow rate and air pressure rise necessary to force cooling air over selected areas of the engine, wherein a rollcage mounting is provided for the engine and alternator.

**67. (*Previously Presented*)** The generator of Claim 66, wherein the engine and alternator are configured to produce a power output of up to about 15 kW.